EXHIBIT 13
DATE 2-13-2009
HB HB 401

Methamphetamine (Meth) Contamination

What is meth?

- Meth is a very addictive stimulant drug that activates certain systems in the brain. It can be made in small, illegal labs, where its production endangers the people in the lab, neighborhood and environment. Street meth is referred to as "speed", "crank" or "chalk". Crystal or chunky meth is referred to as "ice", "crystal" or "glass". (1)

How do I know if a property is contaminated with meth residue?

- If meth was manufactured on the property, there may be red staining (phosphorous) and burn marks on the walls and floors, evidence of chemical dumping in sinks and floor drains and/or strong chemical odors.
- Frequently, there are no visible signs or odors in properties where meth was processed, smoked or used. Meth residue can not be seen.
- Residual meth or other chemical residues can permeate an entire property through air distribution and HVAC systems and by tracking though out a property by meth cooks and consumers. Dumping of waste within a property's plumbing system, septic system and/or on the exterior grounds can also contaminate the property.
- Meth contamination can also affect adjacent properties or other adjacent units, in the case of motel rooms, apartment, and condominium complexes.
- Most often, there is no odor and the only way to know for sure if a property is contaminated is to have it sampled for meth. (1)

Does smoking meth indoors contaminate a property?

- Smoking meth indoors will also distribute meth throughout the structure and the structure's contents. In a controlled "smoke" research project, Dr. John Martyny found that surface areas throughout the room were contaminated with up to 35 micrograms of meth per 100 square centimeters and airborne concentrations ranged from 330 to 1600 micrograms of meth per 100 cubic centimeters. He concluded that meth concentrations on surfaces do not dissipate with time and that meth in carpets is reintrained into the air.(7)
- Handling meth during production, use and packaging the drug for distribution may result in spill onto floors and other surfaces. (1)

Can I live in a meth contaminated home?

- Many experts believe that a property contaminated with meth and meth waste products must be decontaminated prior to occupancy. (6)
- California, Hawaii, Idaho, Michigan, Minnesota, Nevada, North Carolina, Oregon, Tennessee and Utah quarantine, prohibit or restrict the use of the property until it has been properly decontaminated.

How can I be exposed to meth residue?

- Residual or substantial meth contamination of a property is a result of the meth cooking process, meth smoking or use, and the waste stream produced. Meth contamination can persist for weeks, months and even years, or until the property is remediated.
- Hand contamination will result in oral ingestion, especially in the case of children, but it may also be possible for the drug to penetrate the skin of adults.(1) Skin contact with contaminated surfaces results in direct absorption across the skin. (3) (8) and the meth may permeate the skin due to washing (wash-in effect).(9)
- Meth aerolization, from manufacturing or smoking, results in sub micron particles that penetrate deep into the lungs and porous materials. (5) The exposure to airborne contaminants can also occur and the amount of exposure depends on the concentrations in the air and the specific breathing rate of the individual (age dependent).(3)
- Toddlers who crawl on carpet or floors have more likelihood of high frequency skin contact with toxic residues over a considerable area of skin. If hand-to-mouth behavior occurs when hands have been in contact with toxic chemicals, these will be ingested into the body. Hand to eye behavior will introduce toxic materials into the eyes. (1)(3)
- It has also been found that police officers handling suspects or children at the scene, for very short periods of time, can become contaminated with meth. It is possible, therefore, for these individuals to carry this material off the crime scene and home to their own families. (1)
- Neighbors in attached housing may be exposed. (5)

What are the potential health risks of living in a meth-contaminated house?

- The risk of injury from chemical exposure depends on the chemicals themselves, their distribution, surfaces involved, quantities, and the length and route of exposure.(1)
- **Low Dose Effects of Meth(chronic-long term)** (3) (6)
    - Increased blood pressure
    - Sense of well-being
    - Dilation of pupils
    - Improved repetitive and task performance
    - Reduced appetite and caloric intake
    - Sleep disturbance and insomnia
    - Respiratory irritant
    - Skin irritant
- **Effects of Children Exposed to Meth** (4)
    - Inconsolable crying and irritability
    - Agitation
    - Tachycardia (increased heart rate)
    - Vomiting
    - Roving eye movements

- Seizures

- **Prenatal Exposure to Meth** (2)
  - Has been shown to cause an increase in pre-term labor, placental abruption, fetal distress, and postpartum hemorrhage.
  - Infants exposed to meth are generally smaller, have feeding difficulties, and are described as "very slow".

Is there a health-based risk standard for meth?

- Recent studies conducted at California EPA have determined a health-based standard for surface exposure to meth of 1.5 micrograms of meth per 100 square centimeters. California has adopted the health-based standard.

References

(1) American Industrial Hygiene Association, *Clandestine Methamphetamine Laboratory Assessment and Remediation Guidance (AIHA Guidance 8-2007).*

(2) Washington Department of Health: *Review of Contamination Levels: Guidelines for Clandestine Drug Lab Cleanup. State of Washington, Department of Health. Olympia, WA. 2000. 6 pp.*

(3) Mark Cameron, MS, CIH, Health & Safety Program Manager, Bureau of Forensic Services, California Department of Justice.

(4) Penny Grant, MD, Butler Child Advocacy Center: Montefiore, Philadelphia, PA, June 3, 2007.

(5) John Martyny, PhD., CIH, National Jewish Medical and Research Center, *After the Manufacture.*

(6) Thomas D. Koch, CIH, Koch Environmental Health, Inc., Morrison, Colorado.

(7) John Martyny, PhD., CIH, National Jewish Medical and Research Center, *Methamphetamine Concerns and Exposures Associated with Use and Manufacture.*

(8) Charles B. Salocks, PhD., DABT, Staff Toxicologist, California EPA, *Derivation of a Risk-Based Remediation Standard for Methamphetamine; Methamphetamine: New Findings & Research Needs. January 2008.*

Appendix F: State Resources and Other References

State Resources

Alaska Department of Environmental Conservation
http://www.state.ak.us/dec/spar/perp/docs/druglab_guidance.pdf

Arizona
http://www.btr.state.az.us/regulations/drug_lab.asp#305

Arkansas Department of Health and Human Services
http://www.healthyarkansas.com/pdf/adh_methguidelines.pdf

California Department of Toxic Substances Control
http://www.dtsc.ca.gov/SiteCleanup/ERP/Clan_Labs.cfm

Colorado Department of Public Health and Environment
http://www.cdphe.state.co.us/hm/methlab.pdf
http://www.astho.org/pubs/CO2005MethDeconReport.pdf
http://www.cdphe.state.co.us/regulations/boardofhealth/101403methlabrules.pdf

Connecticut Department of Public Health
http://www.methlabcleanup.com/CT%20guidelines

Florida Methamphetamine Legislative Workgroup
http://www.floridadec.org/webfiles.nsf/WF/KGRG-6UJQUQ/$file/METHAMPHETAMINEGuideline.pdf

Hawaii State Department of Health
http://hawaii.gov/health/environmental/hazard/methlab.html

Idaho Department of Health and Welfare
http://www.healthandwelfare.idaho.gov/DesktopModules/DocumentsSortable/DocumentsSrtView.aspx?tabID=0&ItemID=4608&MId=10572&wversion=Staging

Illinois Department of Public Health
http://www.idph.state.il.us/envhealth/factsheets/meth-cleanup.htm

Indiana Department of Environmental Management
http://www.in.gov/idem/4178.htm

Iowa Department of Public Health
http://www.idph.state.ia.us/eh/common/pdf/hseess/meth_lab_cleanup.pdf

Kansas Department of Health and Environment
http://www.kdheks.gov/methlabs/ml_cleanup.html

Kentucky Department of Environmental Protection
http://www.waste.ky.gov/NR/rdonlyres/6226B37B-5E46-4037-BC4F-9C324D3AE942/0/KentuckyMethamphetamineLabDecontaminationGuidanceForInhabitableProperties.pdf

Michigan Department of Community Health
http://www.michigan.gov/mdch/0,1607,7-132-2941_4871-68417--,00.html

Minnesota Department of Health
http://www.health.state.mn.us/divs/eh/meth/lab/guidance0407.pdf

Missouri Department of Health and Senior Services
http://www.dhss.mo.gov/TopicsA-Z/MethLabCleanupGuidelines.pdf

Montana
http://www.deq.mt.gov/meth/Index.asp

North Carolina Department of Health and Human Services
http://www.epi.state.nc.us/epi/oii/pdf/methguidelines.pdf

North Dakota Department of Health
http://www.ndhealth.gov/wm/Publications/BestManagementPracticesForCleanupsAtMethamphetamineLabs.pdf

Ohio Bureau of Environmental Health
http://www.odh.ohio.gov/ASSETS/F66188EC6FAC4E9F80A87D8FE09127BA/MethCleanup.pdf

Oklahoma
http://www.deq.state.ok.us/LPDnew/MethLabs/meth.htm

Oregon Drug Lab Cleanup Program
http://www.oregon.gov/DHS/ph/druglab/index.shtml

South Dakota
http://www.state.sd.us/DENR/DES/WasteMgn/HWaste/MethLabCleanup.pdf

Tennessee Department of Environment and Conservation
http://www.state.tn.us/environment/dor/pdf/Meth_RAP_Guidance.pdf

Utah Department of Environmental Quality
http://www.superfund.utah.gov/meth_cleanup.htm

Washington State Department of Health
http://www.co.mason.wa.us/forms/Env_Health/CDLGUIDELNS.pdf
http://www.doh.wa.gov/ehp/ts/CDL/estab-cdl-standards.doc

West Virginia Department of Environmental Protection
http://www.state.wv.us/swmb/MethLabHP.htm

Wisconsin Department of Health and Family Service
http://www.dhfs.state.wi.us/eh/ChemFS/fs/MethClnUp.htm

Wyoming Department of Health
http://wdh.state.wy.us/phsd/epiid/methcleanup.html

Other References

Alaska Department of Environmental Conservation, *Guidance and Standards for Cleanup of Illegal Drug-Manufacturing Sites (2004) 29.*

American Industrial Hygiene Association, *Clandestine Methamphetamine Laboratory Assessment and Remediation Guidance (2007)* 22.

Association of State and Territorial Solid Waste Management Officials (ASTSWMO), *Clandestine Drug Laboratory Remediation: A Guide to Post Emergency Response (2006).*

California Department of Toxic Substances Control, *Preliminary Analysis of the Efficacy of Using Cleaning Products to Break Down Methamphetamine,* http://www.dtsc.ca.gov/SiteCleanup/ERP/upload/SMBRB_MEMO_Prelim_Analysis.pdf (2004).

California Department of Toxic Substances Control, *Development of a Health-Based Meth Cleanup Standard,* http://www.dtsc.ca.gov/SiteCleanup/ERP/Clan_Labs.cfm#Research (2007).

Colorado Department of Public Health, *Support for Selection of a Cleanup Level for Methamphetamine at Clandestine Drug Laboratories (2005).*

National Alliance for Drug Endangered Children, *Chemical Residual Removal for Children Associated with Clandestine Methamphetamine Laboratories,* http://www.nationaldec.org/WorkingGroups/MedicalResrchWkgGrp.htm.

National Jewish Medical and Research Center, *A 24-Hour Study to Investigate Chemical Exposures Associated with Clandestine Methamphetamine Laboratories,* http://www.nationaljewish.org/pdf/Meth-24hour-study.pdf (2005).

National Jewish Medical and Research Center, *Chemical Exposures Associated with Clandestine Methamphetamine Laboratories,* http://www.nationaljewish.org/pdf/Chemical_Exposures.pdf (2004).

National Jewish Medical and Research Center, *Chemical Exposures Associated with Clandestine Methamphetamine Laboratories Using the Anhydrous Ammonia Method of Production,* http://www.nationaljewish.org/pdf/Ammonia%20Meth.pdf (2004).

North Carolina Department of Health and Human Services, *Illegal Methamphetamine Laboratory Decontamination and Re-Occupancy Guidelines* (2005) 13.

Office of National Drug Control Policy, Synthetic Drug Control Strategy: A Focus on Methamphetamine and Prescription Drug Abuse (Washington D.C., GPO: 2006) 37.

University of Arizona Mel and Enid Zuckerman College of Public Health, *Illegal Methamphetamine Laboratories,* http://www.publichealth.arizona.edu/(X(1)S(44avhfje2bfvgqusp4cbcb45))/Divisions/CEP/IllegalMethLabs.aspx?AspxAutoDetectCookieSupport=1

United States Department of Justice and Drug Enforcement Agency, *Guidelines for Law Enforcement for the Cleanup of Clandestine Drug Laboratories* (Washington D.C., GPO: 2005).